PLEASE ENTER

/Catherine Witczak/ (07/03/2010)

RECEIVED CENTRAL FAX CENTER

CLAIM AMENDMENTS

JUN 1 1 2010

Claim 1 (withdrawn): A device for treating a tissue in an individual, comprising:

an applicator having a surface disposed to contact the tissue; and a means to drive said applicator.

Claim 2 (withdrawn): The device of claim 1, wherein said means to drive said applicator is single stage actuator or a multi-stage actuator.

Claim 3 (withdrawn): The device of claim 1, wherein said means to drive said applicator is a piezoelectric actuator, an electrorestrictive actuator, a magnetorestrictive actuator, or a high frequency electronic motor or a combination thereof.

Claim 4 (withdrawn): The device of claim 1, wherein said means to drive said applicator is magnetically responsive.

Claim 5 (withdrawn): The device of claim 1, wherein said applicator produces vibratory motion at a frequency from about 1 Hz to about 40,000 Hz.

Claim 6 (withdrawn): The device of claim 1, wherein said applicator surface comprises an abrasive material.

Claim 7 (withdrawn): The device of claim 6, wherein said abrasive material has a particle size of about 30 microns to about 120 microns.

Claim 8 (withdrawn): The device of claim 6, wherein said abrasive is diamond, aluminum oxide or carborundum.

Claim 9 (withdrawn): The device of claim 6, where said abrasive is crystalline.

Claim 10 (withdrawn): The device of claim 9, where said abrasive is ice.

Claim 11 (withdrawn): The device of claim 6, wherein said abrasive comprises a pharmaceutical, a biologic or a diagnostic.

Claim 12 (withdrawn): The device of claim 1, wherein said applicator surface further comprises a lubricant.

Claim 13 (withdrawn): The device of claim 12, wherein said lubricant is water, a hydrogel, a lipid, aqueous carbohydrate, petrolatum, an Inorganic oil, glycerol or a combination thereof.

Claim 14 (withdrawn): The device of claim 1, wherein said applicator surface is textured.

Claim 15 (withdrawn): The device of claim 1, further comprising a means to dispense a therapeutic or diagnostic material.

Claim 16 (withdrawn): The device of claim 14, wherein said dispensing means comprises:

a reservoir containing said therapeutic or diagnostic material, and

a permeable membrane through which said therapeutic or diagnostic material is controllably released.

Claim 17 (withdrawn): The device of claim 14, wherein said dispensing means is said abrasive, said abrasive comprising said therapeutic or diagnostic material.

10808108 GAU: 3767

Claim 18 (withdrawn): The device of claim 17, further comprising a lubricant containing said therapeutic or diagnostic material.

Claim 19 (withdrawn): The device of claim 18, wherein said therapeutic or diagnostic material is a pharmaceutical.

Claim 20 (withdrawn): The device of claim 19, wherein said pharmaceutical is an anesthetic, nitroglycerin, an anti-nauseant, an antibiotic, a hormone, a steroidal antinflammatory agent, a non-steroid anti-inflammatory agent, a chemotherapeutic agent, an anti-cancer agent, an immunogen, an anti-viral agent or an anti-fungal agent, a moisturizer, water, or a diagnostic material.

Claim 21 (withdrawn): The device of claim 19, wherein said antibiotic is tetracycline, streptomycin, sulfa drugs, kanamycin, neomycin, penicillin, or chloramphenicol.

Claim 22 (withdrawn): The device of claim 19, wherein said hormone is parathyroid hormone, growth hormone, gonadotropins, insulin, ACTH, somatostatin, prolactin, placental lactogen, melanocyte stimulating hormone, thyrotropin, parathyroid hormone, calcitonin, enkephalin, or angiotensin.

Claim 23 (withdrawn): The device of claim 19, wherein said anesthetic is lidocaine, bupivocaine, tetracaine, morphine, or fentanyl.

Claim 24 (withdrawn): The device of claim 19, wherein said immunogen is a vaccine.

Claim 25 (withdrawn): The device of claim 1, further comprising a means to collect ablated tissue or a biomolecule after treating said tissue.

Claim 26 (withdrawn): The device of claim 24, wherein said collection means is a container operably connected to said device or is an absorptive medium.

Claim 27 (withdrawn): The device of claim 25, wherein said absorptive medium is activated carbon, a dehydrated hydrogel or cotton.

Claim 28 (withdrawn): The device of claim 1, further comprising a means to house said device.

Claim 29 (withdrawn): The device of claim 27, further comprising two wheels rotatably attached to said housing means.

Claim 30 (withdrawn): The device of claim 1, further comprising a means to monitor an electrical property of the tissue.

Claim 31 (withdrawn): The device of claim 29, wherein said monitoring means comprises:

at least one active electrode to electrically contact said tissue at a site of interest; a second return electrode distal to said first electrode to electrically contact said tissue at the site of interest;

an optional electrically conductive fluid interface between said first and second electrodes and the site of interest on said tissue; and

a controller to monitor an electrical current between said first electrode(s) and said second electrode, said controller further comprising a microprocessor.

Claim 32 (withdrawn): The device of claim 30, wherein said monitoring means comprises:

a source of an alternating magnetic field to generate eddy currents in said tissue;

a detector to detect said eddy currents;

a controller to monitor said eddy currents, said controller further comprising a microprocessor.

Claim 33 (withdrawn): The device of claim 30, wherein said electrical property is conductivity, impedance or hydration.

Claim 34 (currently amended): A method for ablating tissue, comprising: contacting the tissue at a site of interest with the surface of the applicator of a device comprising an applicator with a said surface disposed to contact the tissue and a means to drive said applicator;

actuating said applicator comprising said device via the driving means;

altering said tissue at the site of interest thereby treating ablating the tissue.

Claim 35 (original): The method of claim 34, further comprising:
dispensing a pharmaceutical, a biologic or a diagnostic to said altered tissue.

Claim 36 (original): The method of claim 35, wherein said pharmaceutical, biologic or diagnostic is dispensed simultaneously with said tissue alteration or subsequently to said tissue alteration.

Claim 37 (original): The method of claim 35, wherein said pharmaceutical is an anesthetic, nitroglycerin, an anti-nauseant, an antibiotic, a hormone, a steroidal antinflammatory agent, a non-steroid antiinflammatory agent, a chemotherapeutic agent, an anti-cancer agent, an immunogen, an anti-viral agent or an anti-fungal agent, a moisturizer, water, or a diagnostic material.

Claim 38 (original): The method of claim 37, wherein said antibiotic is tetracycline, streptomycin, sulfa drugs, kanamycin, neomycin, penicillin, or chloramphenicol.

Claim 39 (original): The method of claim 37, wherein said hormone is parathyroid hormone, growth hormone, gonadotropins, insulin, ACTH, somatostatin, prolactin, placental lactogen, melanocyte stimulating hormone, thyrotropin, parathyroid hormone, calcitonin, enkephalin, or angiotensin.

Claim 40 (original): The method of claim 37, wherein said anesthetic is lidocaine, bupivocaine, tetracaine, morphine, or fentanyl.

Claim 41 (original): The method of claim 37, wherein said immunogen is a vaccine.

Claim 42 (original): The method of claim 34, further comprising: monitoring an electrical property of said tissue to control the alteration thereof.

Claim 43 (original): The method of claim 42, wherein said monitoring comprises:

contacting said tissue at the site of interest with at least one active electrode and a return electrode distal to said electrode;

monitoring an electrical current between said active electrode(s) and said return electrode via a controller; and

correlating said electric current with the electrical property of said tissue.

Claim 44 (original): The method of claim 43, further comprising: applying an electrically conductive fluid interface between said active electrode(s) and said return electrode and the site of interest on said tissue.

Claim 45 (original): The method of claim 43, further comprising:
signaling said device to continue altering said tissue or to adjust the altering of said tissue at the site of interest via a microprocessor in said controller.

Claim 46 (original): The method of claim 42, wherein said electrical property is conductivity, impedance or hydration.

Claim 47 (original): The method of claim 42, wherein said monitoring comprises:

providing an alternating magnetic field proximally to said tissue; generating eddy currents via said magnetic field in said tissue;

monitoring said eddy currents via a controller; and correlating said eddy currents with electrical conductivity of said tissue.

Claim 48 (original): The method of claim 47, further comprising:
signaling said device to continue altering said tissue or to adjust the altering of said tissue at the site of interest via a microprocessor in said controller.

Claim 49 (original): The method of claim 34, wherein said tissue is membranous or non-membranous.

Claim 50 (original): The method of claim 49, wherein said membranous tissue is the stratum corneum.

Claim 51 (original): The method of claim 49, wherein said non-membranous tissue is bone.

Claim 52 (original): The method of claim 34, wherein treating said tissue comprises at least partial ablation of said tissue, a reduction of the mechanical integrity of said tissue, dermabrasion, or a cosmetic procedure.

Claim 53 (withdrawn): A method of controlling the permeability of a tissue in an individual comprising:

contacting the tissue at a site of interest with the surface of the applicator of the device of claim 1;

altering said tissue at the site of interest:

monitoring an electrical property of said tissue at the site of interest; applying an algorithm to evaluate the electrical property;

comparing the value obtained for said electrical property to a predetermined value wherein said values correlate to the permeability of said tissue;

determining if said obtained value is at least equal to said predetermined value; and

signaling the device via the controller to continue altering said tissue if the obtained value does not at least equal the predetermined value thereby controlling the permeability of said tissue at the site of interest.

Claim 54 (withdrawn): The method of claim 53, wherein said monitoring comprises:

contacting said tissue at the site of interest with at least one active electrode and a return electrode distal to said electrode; and monitoring an electrical current between said active electrode(s) and said return electrode via a controller.

Claim 55 (withdrawn): The method of claim 54, further comprising:

applying an electrically conductive fluid interface between said active electrode(s) and and said return electrode and the site of interest on said tissue.

Claim 56 (withdrawn): The method of claim 53, wherein said monitoring comprises:

providing an alternating magnetic field proximally to said tissue; generating eddy currents in said tissue via said magnetic field; and monitoring said eddy currents via a controller.

Claim 57 (withdrawn): The method of claim 53, further comprising:

dispensing a pharmaceutical to the site of interest, wherein said pharmaceutical is dispensed during said monitoring step or subsequent to reaching said predetermined value of the electrical property.

ADLERANDASSOCIATES

Claim 58 (withdrawn): The method of claim 53, wherein said predetermined value of said electrical property is a known value or is obtained prior to treating said tissue.

Claim 59 (withdrawn): The method of claim 58, wherein said predetermined value of said electrical property is obtained from the same individual or within a group of individuals.

Claim 60 (withdrawn): The method of claim 43, wherein said electrical property is conductivity, impedance or hydration.